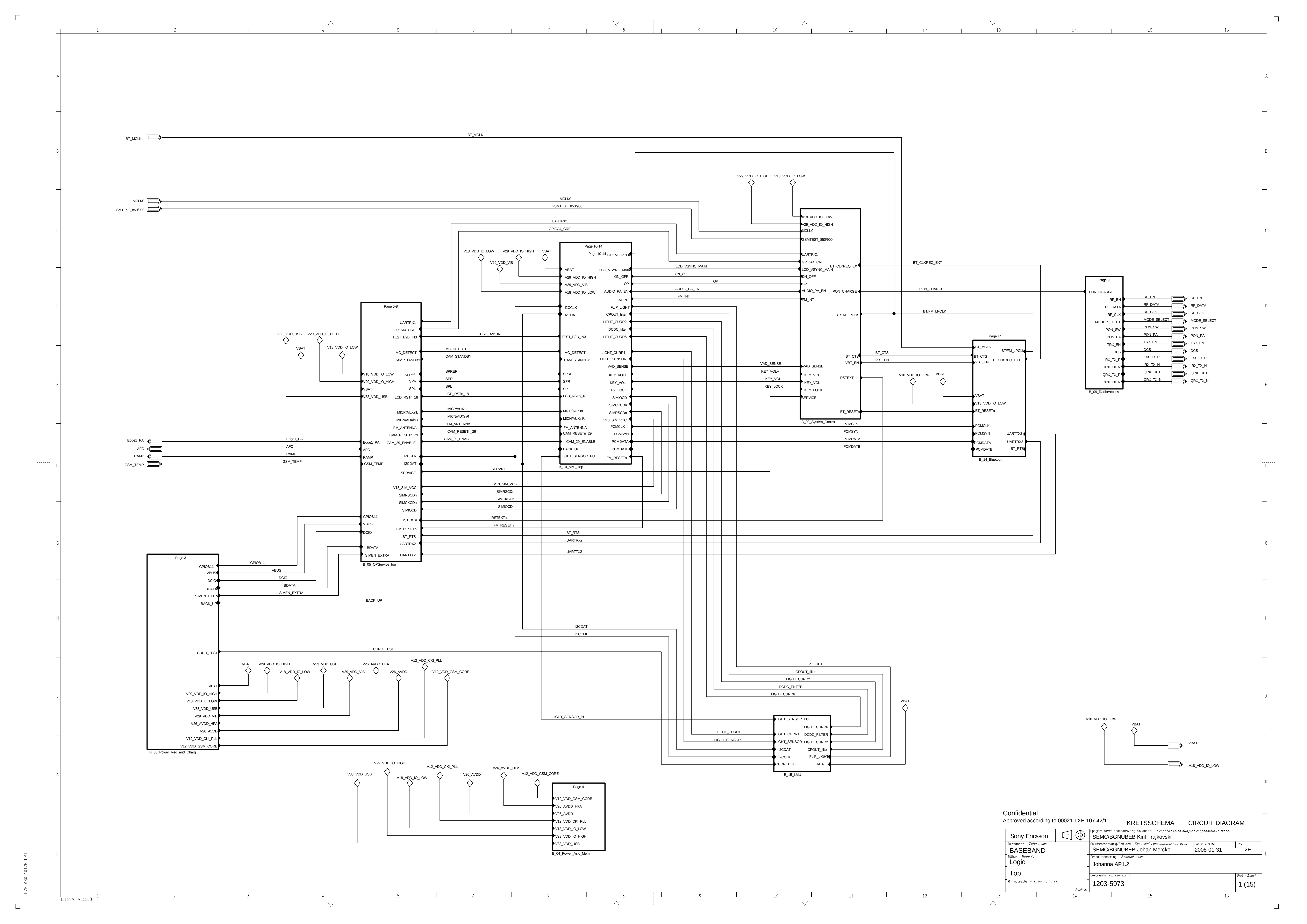


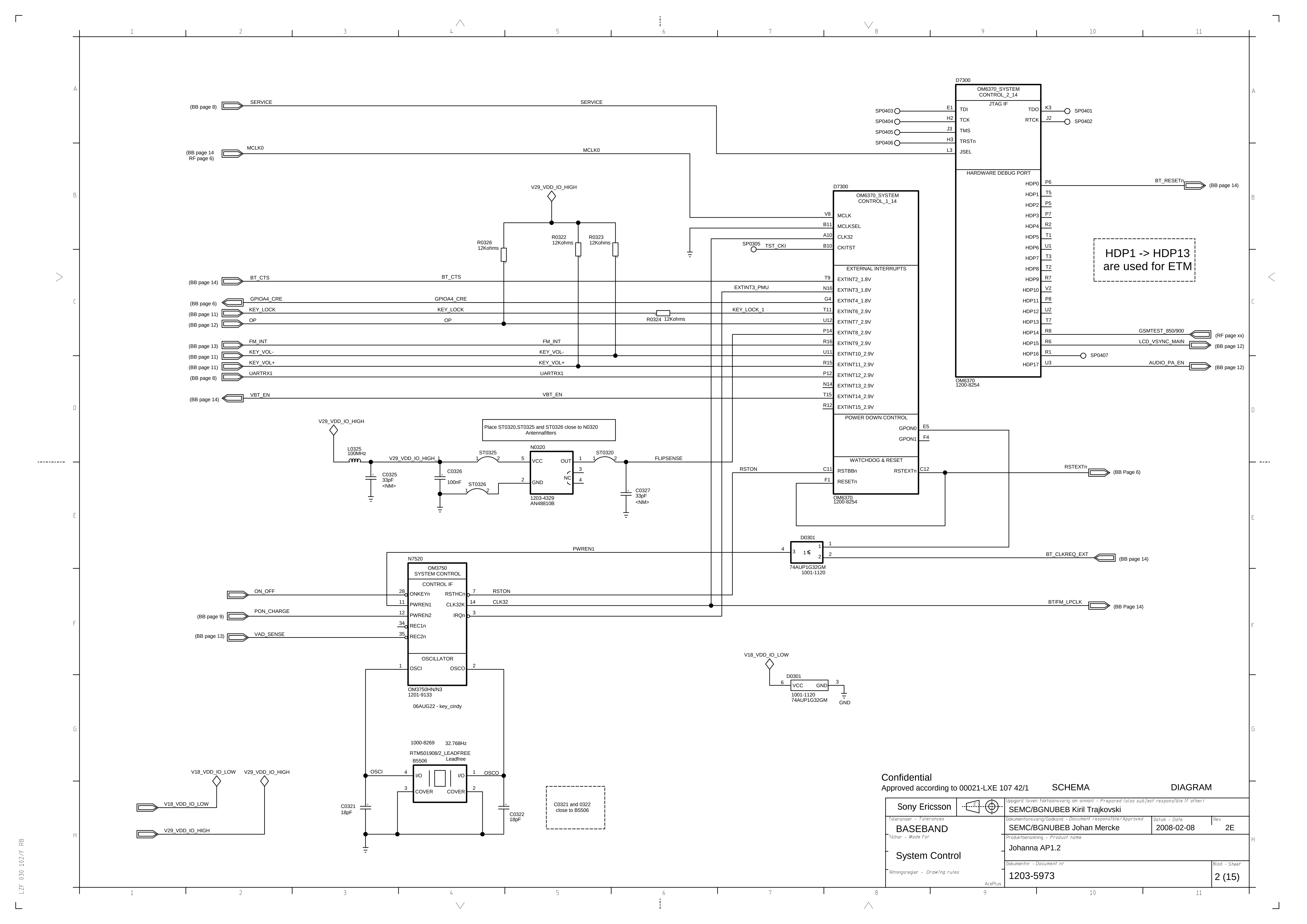
Confidential
Approved according to 00021-LXE 107 42/1

KRETSSCHEMA CIRCUIT DIAGRAM

Sony Ericsson	Uppgjord – Prepared: SEMC/BGNUBEB Kiril Trajkovski		
BASEBAND	Dokumentansvarig/Godkänd – Approved: SEMC/BGNUBEB Johan Mercke	Datum – Date: 2008-01-31	Rev: 2E
Logic Top	Produktbenämning – Product name: Johanna AP1.2		
	Dokumentnr – Document nr: 1203-5973		Blad – Sheet: 1 (15)

LZF 030 101/F R8I

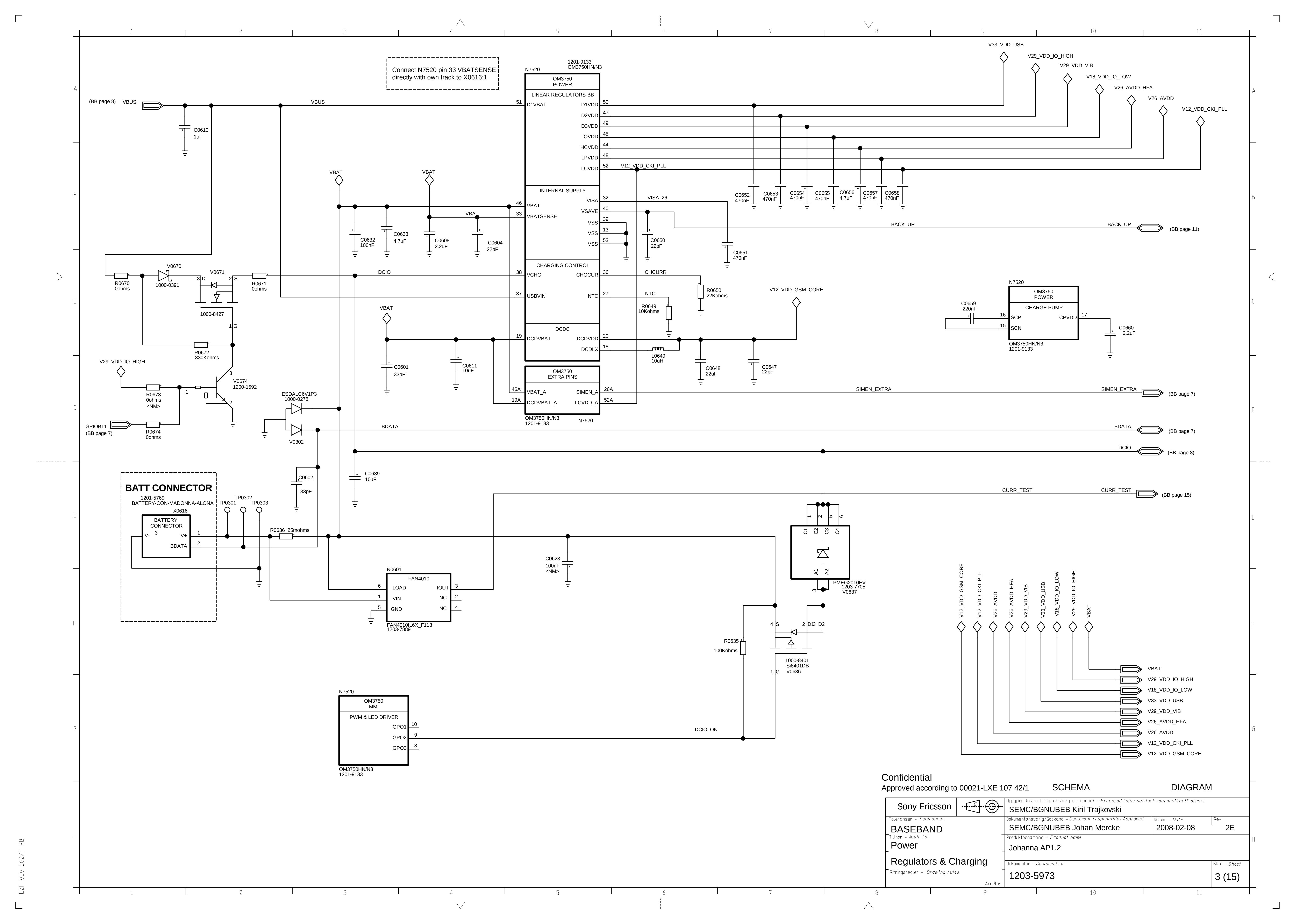
H=16NA; V=11LD

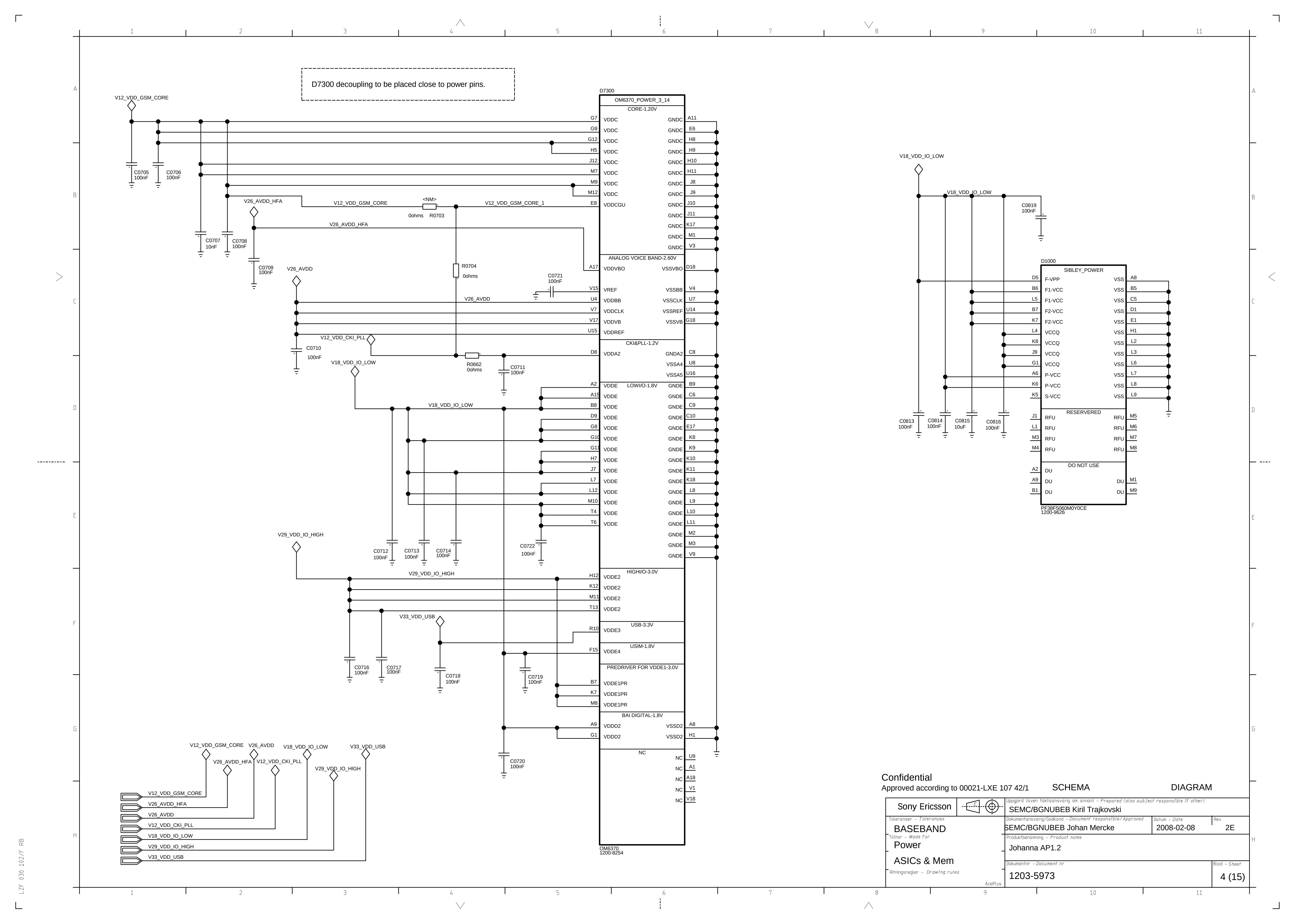


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Approved according to 00021-LXE 107 42/1 SCHEMA DIAGRAM

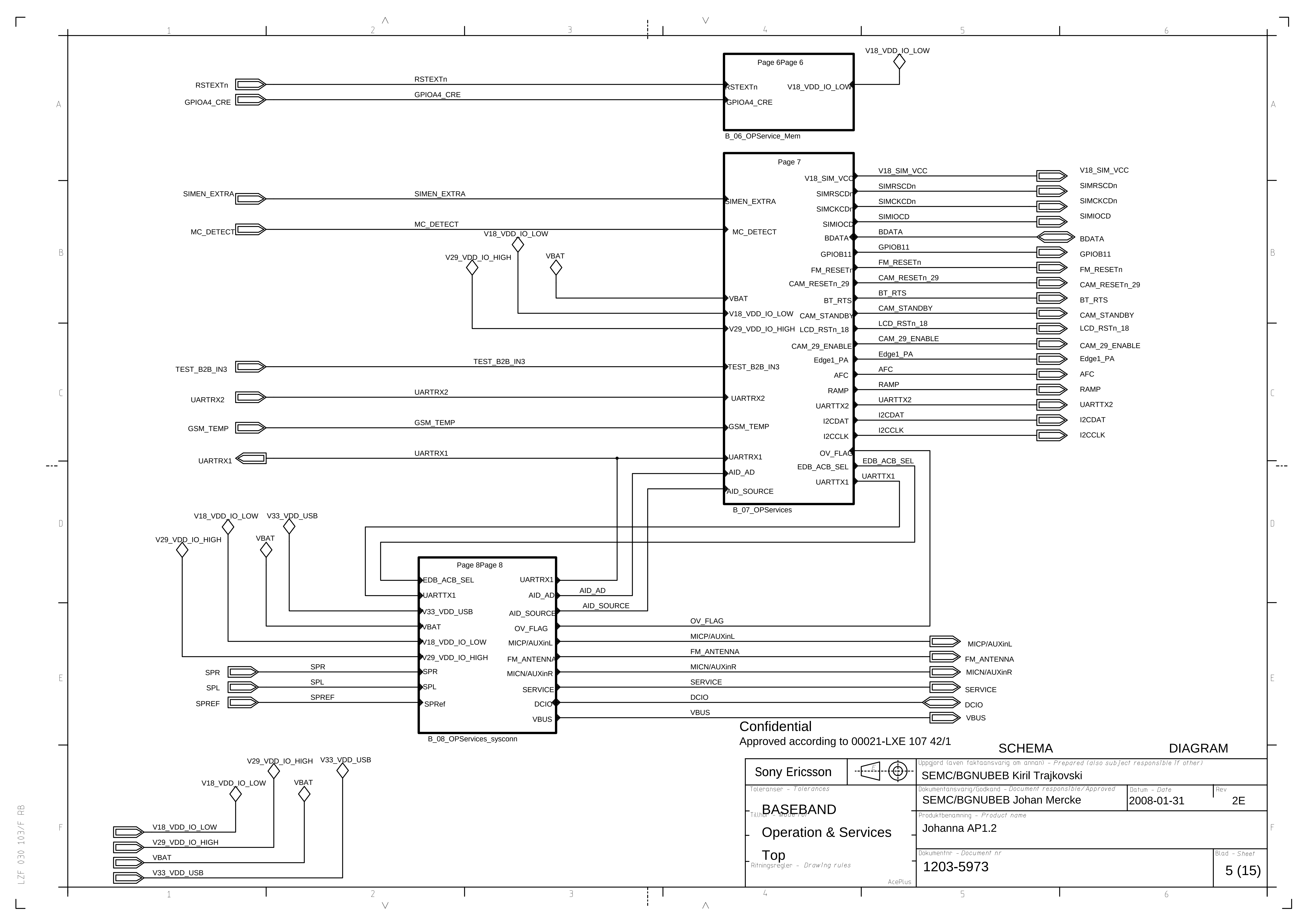
Sony Ericsson	Uppgjord - Prepared: SEMC/BGNUBEB Kiril Trajkovski		
Toleranser - Tolerances: BASEBAND	Dokumentansvarig/Godkänd - Document responsible/Approved: SEMC/BGNUBEB Johan Mercke	Datum - Date: 2008-02-08	Rev: 2E
Tillhör - Made for: System Control	Produktbenämning - Product name: Johanna AP1.2		
Ritningsregler - Drawing rules	Dokumentnr - Document nr: 1203-5973		Blad - Sheet: 2 (15)

LZF 030 102/F RB

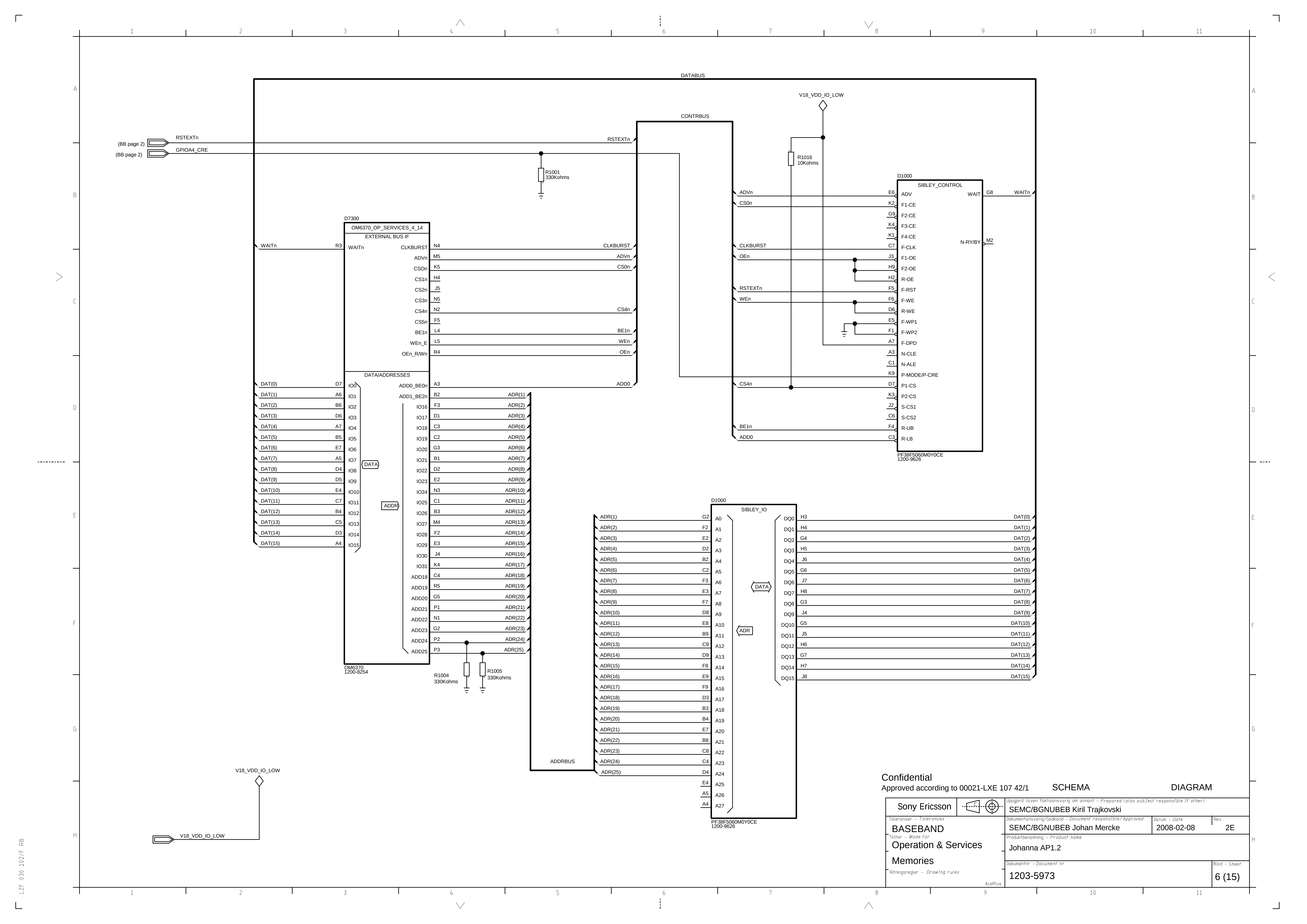

Connect N7520 pin 33 VBATSENSE
directly with own track to X0616:1
N7520
1201-9133
OM3750HN/N3
OM3750
POWER
LINEAR REGULATORS-BB
D1VBAT
D1VDD
D2VDD
D3VDD
IOVDD
HCVDD
LPVDD
LCVDD
V12_VDD_CKI_PLL
INTERNAL SUPPLY
VBAT
VBATSENSE
VISA
VSAVE
VSS
VISA_26
BACK_UP
(BB page 11)
CHARGING CONTROL
VCHG
CHGCUR
USBVIN
NTC
CHCURR
DCDC
DCDCVBAT
DCDVDD
DCDLX
OM3750
EXTRA PINS
VBAT_A
SIMEN_A
DCDCVBAT_A
LCVDD_A
SIMEN_EXTRA
(BB page 7)
BDATA
(BB page 7)
DCIO
(BB page 8)
CURR_TEST
(BB page 15)
V33_VDD_USB
V29_VDD_IO_HIGH
V29_VDD_VIB
V18_VDD_IO_LOW
V26_AVDD_HFA
V26_AVDD
V12_VDD_CKI_PLL
V12_VDD_GSM_CORE
(BB page 8) VBUS
C0610 1uF
VBAT
C0632 100nF
C0633 4.7uF
C0608 2.2uF
C0604 22pF
C0650 22pF
C0651 470nF
C0652 470nF
C0653 470nF
C0654 470nF
C0655 470nF
C0656 4.7uF
C0657 470nF
C0658 470nF
R0670 0ohms
V0670 1000-0391
V0671 1000-8427
R0671 0ohms
R0672 330Kohms
R0650 22Kohms
R0649 10Kohms
L0649 10uH
C0648 22uF
C0647 22pF
C0601 33pF
C0611 10uF
V29_VDD_IO_HIGH
R0673 0ohms <NM>
V0674 1200-1592
GPIOB11
(BB page 7)
R0674 0ohms
ESDALC6V1P3
1000-0278
V0302
C0602 33pF
C0639 10uF
N7520
OM3750
POWER
CHARGE PUMP
SCP
SCN
CPVDD
OM3750HN/N3
1201-9133
C0659 220nF
C0660 2.2uF
BATT CONNECTOR
1201-5769
BATTERY-CON-MADONNA-ALONA
X0616
BATTERY CONNECTOR
V-
V+
BDATA
TP0301
TP0302
TP0303
R0636 25mohms
C0623 100nF <NM>
N0601
FAN4010
LOAD
VIN
GND
IOUT
NC
FAN4010IL6X_F113
1203-7889
PMEG2010EV
1203-7705
V0637
R0635 100Kohms
1000-8401
Si8401DB
V0636
DCIO_ON
N7520
OM3750
MMI
PWM & LED DRIVER
GPO1
GPO2
GPO3
OM3750HN/N3
1201-9133
VBAT
V29_VDD_IO_HIGH
V18_VDD_IO_LOW
V33_VDD_USB
V29_VDD_VIB
V26_AVDD_HFA
V26_AVDD
V12_VDD_CKI_PLL
V12_VDD_GSM_CORE
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA
DIAGRAM
Sony Ericsson
Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other)
SEMC/BGNUBEB Kiril Trajkovski
Toleranser - Tolerances
BASEBAND
Dokumentansvarig/Godkänd - Document responsible/Approved
SEMC/BGNUBEB Johan Mercke
Datum - Date
2008-02-08
Rev
2E
Tillhör - Made for
Power
Regulators & Charging
Produktbenämning - Product name
Johanna AP1.2
Ritningsregler - Drawing rules
Dokumentnr - Document nr
1203-5973
Blad - Sheet
3 (15)
AcePlus
LZF 030 102/F RB



D7300 decoupling to be placed close to power pins.
V12_VDD_GSM_CORE
D7300
OM6370_POWER_3_14
CORE-1.20V
C0705 100nF
C0706 100nF
C0707 10nF
C0708 100nF
C0709 100nF
V26_AVDD_HFA
V12_VDD_GSM_CORE
<NM>
0ohms R0703
V12_VDD_GSM_CORE_1
R0704 0ohms
V26_AVDD
C0721 100nF
ANALOG VOICE BAND-2.60V
C0710 100nF
V12_VDD_CKI_PLL
V18_VDD_IO_LOW
R0662 0ohms
C0711 100nF
CKI&PLL-1.2V
LOWI/O-1.8V
C0712 100nF
C0713 100nF
C0714 100nF
C0722 100nF
V29_VDD_IO_HIGH
HIGHI/O-3.0V
V33_VDD_USB
USB-3.3V
USIM-1.8V
C0716 100nF
C0717 100nF
C0718 100nF
C0719 100nF
PREDRIVER FOR VDDE1-3.0V
BAI DIGITAL-1.8V
C0720 100nF
NC
OM6370
1200-8254
V18_VDD_IO_LOW
C0819 100nF
D1000
SIBLEY_POWER
C0813 100nF
C0814 100nF
C0815 10uF
C0816 100nF
RESERVERED
DO NOT USE
PF38F5060M0Y0CE
1200-9626
V12_VDD_GSM_CORE
V26_AVDD_HFA
V26_AVDD
V12_VDD_CKI_PLL
V18_VDD_IO_LOW
V29_VDD_IO_HIGH
V33_VDD_USB
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA
DIAGRAM
Sony Ericsson
SEMC/BGNUBEB Kiril Trajkovski
BASEBAND
SEMC/BGNUBEB Johan Mercke
2008-02-08
2E
Power
ASICs & Mem
Johanna AP1.2
1203-5973
4 (15)
AcePlus
LZF 030 102/F RB



Page 6Page 6
RSTEXTn
GPIOA4_CRE
V18_VDD_IO_LOW
B_06_OPService_Mem
Page 7
SIMEN_EXTRA
MC_DETECT
V29_VDD_IO_HIGH
VBAT
TEST_B2B_IN3
UARTRX2
GSM_TEMP
UARTRX1
AID_AD
AID_SOURCE
V18_SIM_VCC
SIMRSCDn
SIMCKCDn
SIMIOCD
BDATA
GPIOB11
FM_RESETn
CAM_RESETn_29
BT_RTS
CAM_STANDBY
LCD_RSTn_18
CAM_29_ENABLE
Edge1_PA
AFC
RAMP
UARTTX2
I2CDAT
I2CCLK
OV_FLAG
EDB_ACB_SEL
UARTTX1
B_07_OPServices
V33_VDD_USB
Page 8Page 8
SPR
SPL
SPREF
SPRef
MICP/AUXinL
FM_ANTENNA
MICN/AUXinR
SERVICE
DCIO
VBUS
B_08_OPServices_sysconn
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA
DIAGRAM
Sony Ericsson
Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other)
SEMC/BGNUBEB Kiril Trajkovski
Toleranser - Tolerances
Dokumentansvarig/Godkänd - Document responsible/Approved
SEMC/BGNUBEB Johan Mercke
Datum - Date
2008-01-31
Rev
2E
BASEBAND
Tillhör - Made for
Operation & Services
Top
Produktbenämning - Product name
Johanna AP1.2
Ritningsregler - Drawing rules
Dokumentnr - Document nr
1203-5973
Blad - Sheet
5 (15)
AcePlus
LZF 030 103/F RB



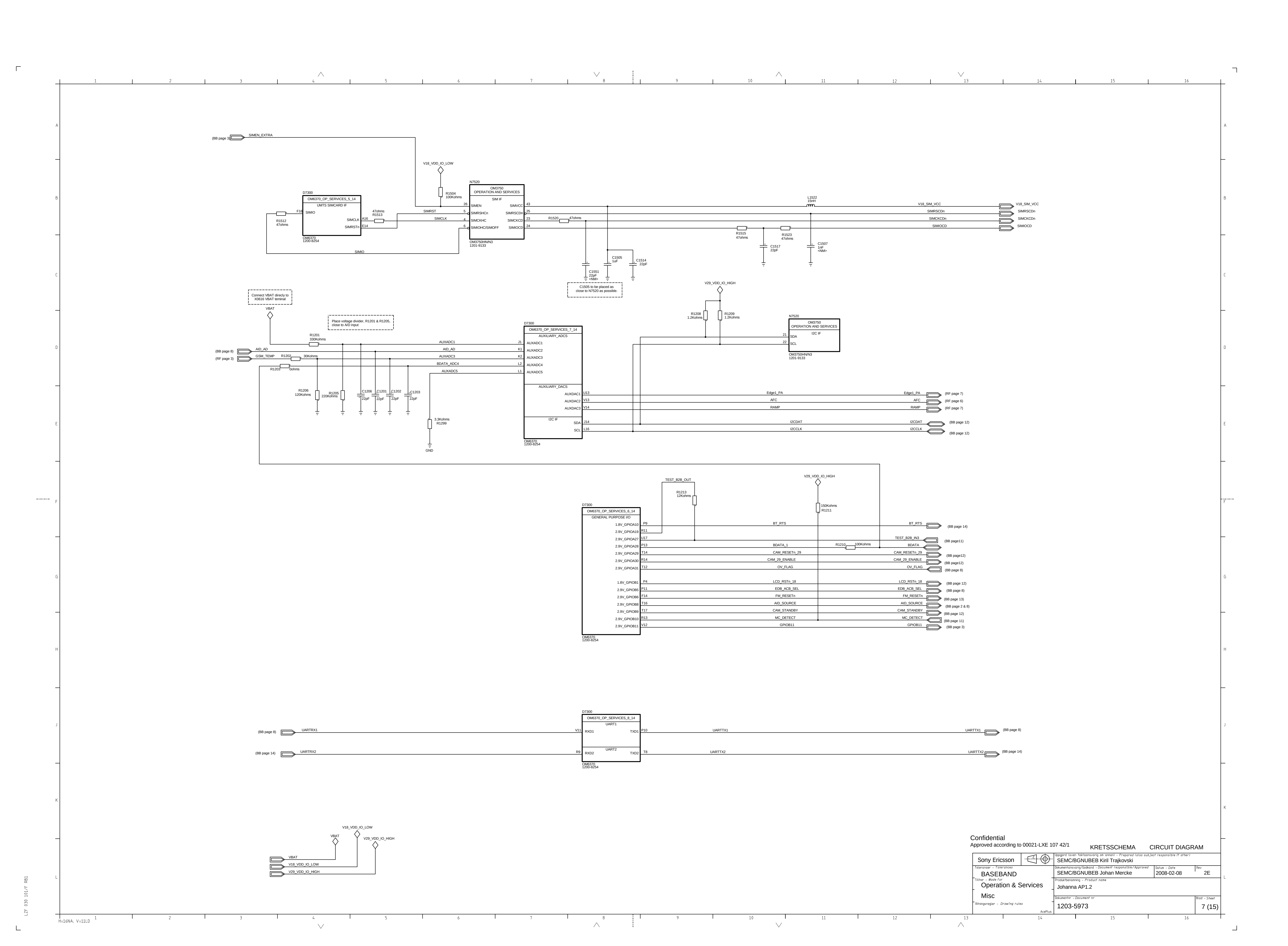
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SCHEMA DIAGRAM

Sony Ericsson	Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other): SEMC/BGNUBEB Kiril Trajkovski		
Toleranser - Tolerances: BASEBAND	Dokumentansvarig/Godkänd - Document responsible/Approved: SEMC/BGNUBEB Johan Mercke	Datum - Date: 2008-02-08	Rev: 2E
Tillhör - Made for: Operation & Services Memories	Produktbenämning - Product name: Johanna AP1.2		
Ritningsregler - Drawing rules	Dokumentnr - Document nr: 1203-5973		Blad - Sheet: 6 (15)

AcePlus

LZF 030 102/F R8


(BB page 3)
SIMEN_EXTRA
V18_VDD_IO_LOW
R1504
100Kohms
N7520
OM3750
OPERATION AND SERVICES
SIM IF
26 SIMEN
5 SIMRSHCn
4 SIMCKHC
6 SIMIOHC/SIMOFF
SIMVCC 43
SIMRSCDn 25
SIMCKCD 23
SIMIOCD 24
OM3750HN/N3
1201-9133
D7300
OM6370_OP_SERVICES_5_14
UMTS SIMCARD IF
F16 SIMIO
SIMCLK A16
SIMRSTn E14
OM6370
1200-8254
R1512
47ohms
47ohms
R1513
SIMRST
SIMCLK
SIMIO
R1520
47ohms
C1551
22pF
<NM>
C1505
1uF
C1514
22pF
C1505 to be placed as
close to N7520 as possible.
L1522
15nH
V18_SIM_VCC
SIMRSCDn
SIMCKCDn
SIMIOCD
R1515
47ohms
R1523
47ohms
C1517
22pF
C1507
1nF
<NM>
V18_SIM_VCC
SIMRSCDn
SIMCKCDn
SIMIOCD
Connect VBAT direcly to
X0616 VBAT teminal
VBAT
Place voltage divider, R1201 & R1205,
close to A/D input
R1201
330Kohms
(BB page 8)
AID_AD
(RF page 3)
GSM_TEMP
R1202
30Kohms
R1203
0ohms
R1206
120Kohms
R1205
220Kohms
C1206
22pF
C1201
22pF
C1202
22pF
C1203
22pF
3.3Kohms
R1299
GND
AUXADC1
AID_AD
AUXADC3
BDATA_ADC4
AUXADC5
D7300
OM6370_OP_SERVICES_7_14
AUXILIARY_ADCS
J1 AUXADC1
K1 AUXADC2
K2 AUXADC3
L2 AUXADC4
L1 AUXADC5
AUXILIARY_DACS
AUXDAC1 U13
AUXDAC2 V13
AUXDAC3 V14
I2C IF
SDA J14
SCL L16
OM6370
1200-8254
V29_VDD_IO_HIGH
R1208
1.2Kohms
R1209
1.2Kohms
N7520
OM3750
OPERATION AND SERVICES
I2C IF
21 SDA
22 SCL
OM3750HN/N3
1201-9133
Edge1_PA
AFC
RAMP
I2CDAT
I2CCLK
Edge1_PA (RF page 7)
AFC (RF page 6)
RAMP (RF page 7)
I2CDAT (BB page 12)
I2CCLK (BB page 12)
TEST_B2B_OUT
R1213
12Kohms
V29_VDD_IO_HIGH
150Kohms
R1211
D7300
OM6370_OP_SERVICES_6_14
GENERAL PURPOSE I/O
1.8V_GPIOA10 P9
2.9V_GPIOA19 R11
2.9V_GPIOA27 U17
2.9V_GPIOA28 P13
2.9V_GPIOA29 T14
2.9V_GPIOA30 R14
2.9V_GPIOA31 T12
1.8V_GPIOB1 P4
2.9V_GPIOB5 P11
2.9V_GPIOB6 F14
2.9V_GPIOB8 T16
2.9V_GPIOB9 T17
2.9V_GPIOB10 R13
2.9V_GPIOB11 V12
OM6370
1200-8254
BT_RTS
BDATA_1
R1210
100Kohms
CAM_RESETn_29
CAM_29_ENABLE
OV_FLAG
LCD_RSTn_18
EDB_ACB_SEL
FM_RESETn
AID_SOURCE
CAM_STANDBY
MC_DETECT
GPIOB11
BT_RTS (BB page 14)
TEST_B2B_IN3 (BB page11)
BDATA
CAM_RESETn_29 (BB page12)
CAM_29_ENABLE (BB page12)
OV_FLAG (BB page 8)
LCD_RSTn_18 (BB page 12)
EDB_ACB_SEL (BB page 8)
FM_RESETn (BB page 13)
AID_SOURCE (BB page 2 & 8)
CAM_STANDBY (BB page 12)
MC_DETECT (BB page 11)
GPIOB11 (BB page 3)
D7300
OM6370_OP_SERVICES_8_14
UART1
V11 RXD1
TXD1 P10
UART2
R9 RXD2
TXD2 T8
OM6370
1200-8254
(BB page 8) UARTRX1
(BB page 14) UARTRX2
UARTTX1
UARTTX2
UARTTX1 (BB page 8)
UARTTX2 (BB page 14)
VBAT
V18_VDD_IO_LOW
V29_VDD_IO_HIGH
VBAT
V18_VDD_IO_LOW
V29_VDD_IO_HIGH
Confidential
Approved according to 00021-LXE 107 42/1
KRETSSCHEMA
CIRCUIT DIAGRAM
Sony Ericsson
Uppgjord (aven faktaansvarig om annan) - Prepared (also subject responsible if other)
SEMC/BGNUBEB Kiril Trajkovski
Toleranser - Tolerances
BASEBAND
Dokumentansvarig/Godkand - Document responsible/Approved
SEMC/BGNUBEB Johan Mercke
Datum - Date
2008-02-08
Rev
2E
Tillhor - Made for
Operation & Services
Misc
Produktbenamning - Product name
Johanna AP1.2
Ritningsregler - Drawing rules
AcePlus
Dokumentnr - Document nr
1203-5973
Blad - Sheet
7 (15)
LZF 030 101/F RB1
H=16NA; V=11LD

V33_VDD_USB
<NM>
1Mohms
R2621

D7300
OM6370_DATA_COM_9_14
USB IF
USBDP V10 USBDP
USBDM T10 USBDM
USBCN U10 USBCN
OM6370
1200-8254

C2614 22pF <NM>
C2615 22pF <NM>
R2604 1.5Kohms 1%
USBDP

V29_VDD_IO_HIGH
R2601 4.7Kohms
4 S V2699 3 D
5 G
1000-0395
Si1551DL

V18_VDD_IO_LOW
R2622 100Kohms
R2624 100Kohms
R2602 1Kohms 1%
R2603 560ohms
SERVICE (BB page 2)
V2622 UNR32A7 1000-0271
R2617 0ohms
C2604 33pF <NM>
V29_VDD_IO_HIGH
R2607 4.7Kohms
R2608 470ohms
V2699 Si1551DL 1000-0395
R2605 1Kohms

EDB_USB_SEL
V2698 DTC144EM3T5G 1200-1592
07MAR13 - key_cindy
R2623 100Kohms
VBAT
R2616 180ohms
N2601
MAX4717
B4 V+
C2 IN1 IN2 A2
C3 COM1 COM2 A3
C1 NC1 NC2 A1
C4 NO1 NO2 A4
B1 GND
NLAS4717
1000-0202
R2613 100Kohms

(BB page 7) EDB_ACB_SEL
R2628 10Kohms
VBAT
N2602
MAX4717
B4 V+
C2 IN1 IN2 A2
C3 COM1 COM2 A3
DFMS C1 NC1 NC2 A1
CFMS C4 NO1 NO2 A4
B1 GND
NLAS4717
1000-0202
LEADFREE
(BB page 7) UARTTX1
R2615 220ohms
R2614 100Kohms <NM>
(BB page 7) AID_SOURCE
V2612 1000-0087 Leadfree
DTMS
CTMS

AID/ACB/VPP
R2611 47Kohms
AID_AD
R2612 100Kohms
AID_AD (BB page 7)
UARTRX1 (BB page 7 & 2)
R2606 1Kohms
UARTRX1_1
R2619 100Kohms
DP/DTMS_1
R2610 33ohms 1%
DM/DFMS_1
R2609 33ohms 1%

Mount L2601 - L2605 as close as possible to system connector

X2600
System connector
DCIO
12 D-/DFMS
11 D+/DTMS
10 GND
9 AID/ACB/VPP
8 VIDEO/STROBE
7 SPR
6 SPL
5 MICN/AUXinR
4 MICP/AUXinL
3 SPRef
2 VBUS
1

(BB page 3) DCIO
V0611 PESD15VS1UL 1201-0746
(BB page 13) SPR
(BB page 13) SPL
(BB page 13) MICN/AUXinR
(BB page 13) MICP/AUXinL
(BB page 13) SPREF
(BB page 3) VBUS
DM/DFMS
DP/DTMS
1.8k L2601 100MHz
1.8k L2602 100MHz
1.8k L2603 100MHz
1.8k L2604 100MHz
1.8k L2606 100MHz
L2605 270nH

Signal routed in outer layer and no ground plane underneath!

V29_VDD_IO_HIGH
C2617 25V 1uF
10Kohms R2629 <NM>
OV_FLAG
R2630 0ohms <NM>
N2603
NCP360
4 OUT IN 3
5 OUT EN 1
6 FLAG GND 7
GND_SLUG 2
NCP360
1200-6309

C2610 25V 1uF
C2603 25V 1nF
C2607 220nF
C2608 220nF
C2601 33nF
C2602 33nF
R2618 3.9ohms
C2613 220nF
C0607 25V 1uF
V2611 5.6
C2612 150pF <NM>
V2613 ADUC5S021R5 1202-6532
V2614 ADUC5S021R5 1202-6532
C2616 1nF
V0612 1200-5204 GBLC03
FM_ANTENNA

Signal routed in outer layer and no ground plane underneath!

V18_VDD_IO_LOW V33_VDD_USB
V29_VDD_IO_HIGH VBAT
V29_VDD_IO_HIGH
V18_VDD_IO_LOW
VBAT
V33_VDD_USB

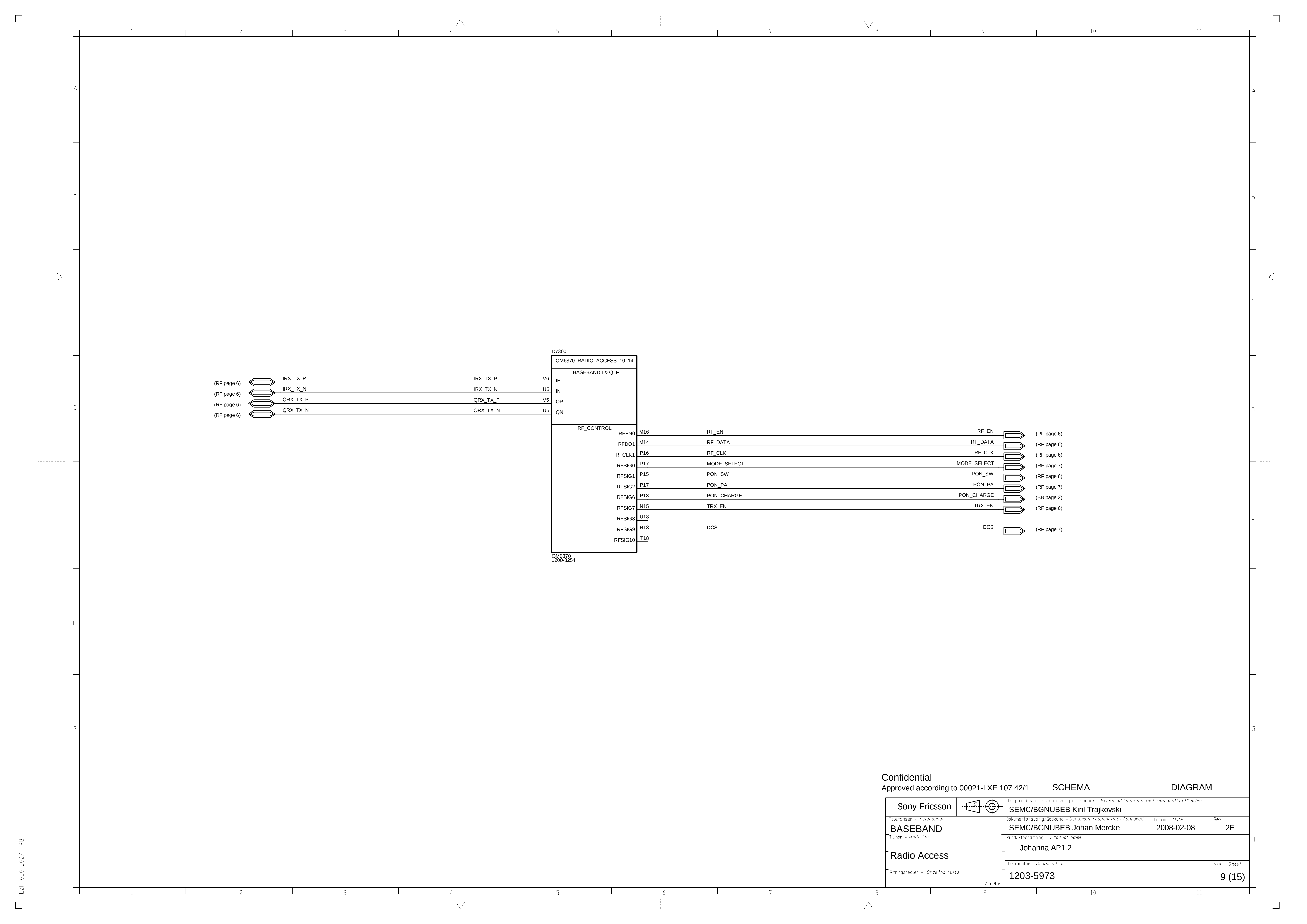
Confidential
Approved according to 00021-LXE 107 42/1

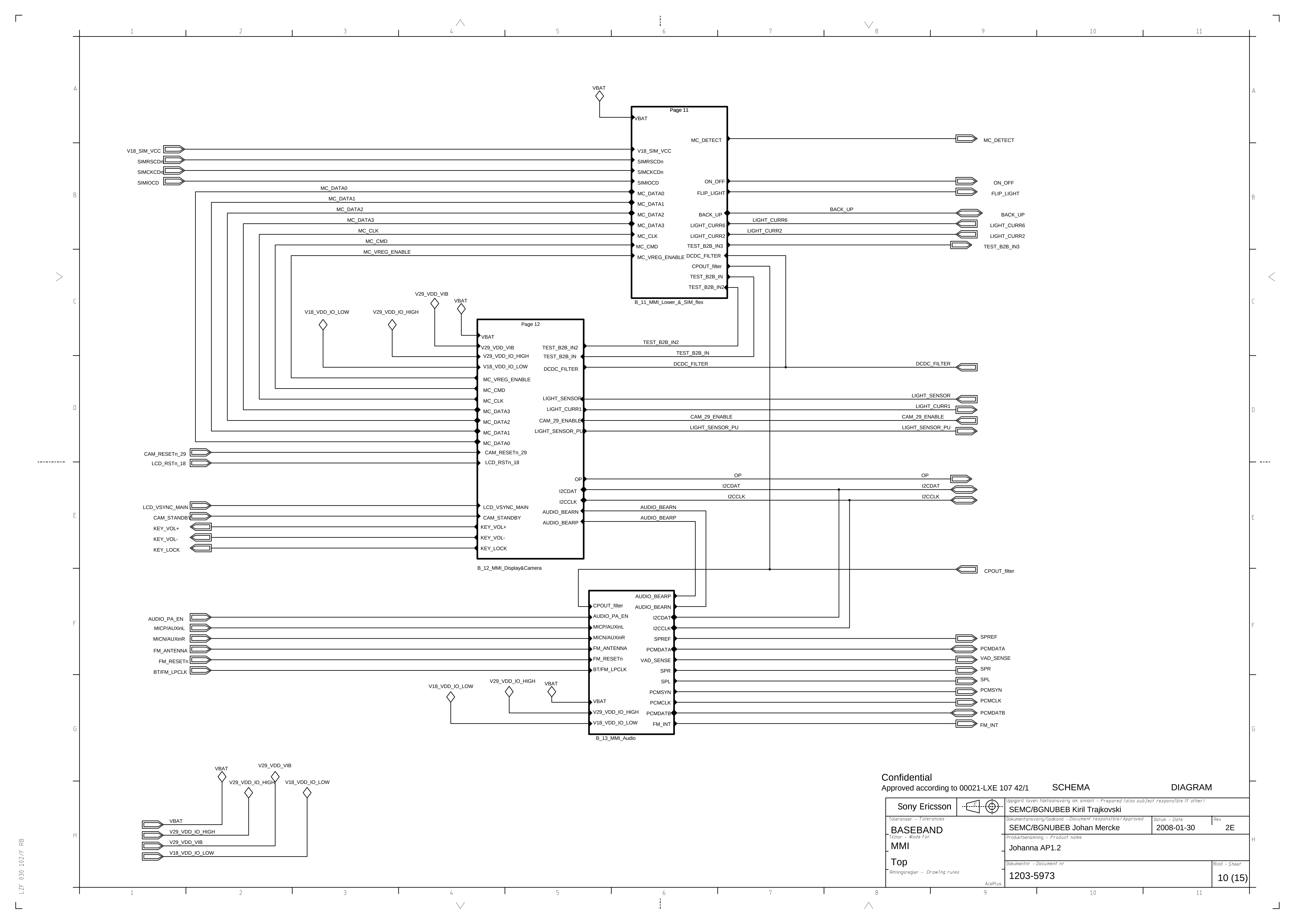
SCHEMA DIAGRAM

Sony Ericsson	Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other): SEMC/BGNUBEB Kiril Trajkovski		
Toleranser - Tolerances: BASEBAND	Dokumentansvarig/Godkänd - Document responsible/Approved: SEMC/BGNUBEB Johan Mercke	Datum - Date: 2008-02-08	Rev: 2E
Tillhör - Made for: Operation & Services Sys Conn	Produktbenämning - Product name: Johanna AP1_2		
Ritningsregler - Drawing rules	Dokumentnr - Document nr: 1203-5973		Blad - Sheet: 8 (15)

AcePlus

LZF 030 102/F RB


D7300
OM6370_RADIO_ACCESS_10_14
BASEBAND I & Q IF
(RF page 6) IRX_TX_P IRX_TX_P V6 IP
(RF page 6) IRX_TX_N IRX_TX_N U6 IN
(RF page 6) QRX_TX_P QRX_TX_P V5 QP
(RF page 6) QRX_TX_N QRX_TX_N U5 QN
RF_CONTROL
RFEN0 M16 RF_EN RF_EN (RF page 6)
RFDO1 M14 RF_DATA RF_DATA (RF page 6)
RFCLK1 P16 RF_CLK RF_CLK (RF page 6)
RFSIG0 R17 MODE_SELECT MODE_SELECT (RF page 7)
RFSIG1 P15 PON_SW PON_SW (RF page 6)
RFSIG2 P17 PON_PA PON_PA (RF page 7)
RFSIG6 P18 PON_CHARGE PON_CHARGE (BB page 2)
RFSIG7 N15 TRX_EN TRX_EN (RF page 6)
RFSIG8 U18
RFSIG9 R18 DCS DCS (RF page 7)
RFSIG10 T18
OM6370
1200-8254
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA
DIAGRAM
Sony Ericsson
Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other)
SEMC/BGNUBEB Kiril Trajkovski
Toleranser - Tolerances
BASEBAND
Dokumentansvarig/Godkänd - Document responsible/Approved
SEMC/BGNUBEB Johan Mercke
Datum - Date
2008-02-08
Rev
2E
Tillhör - Made for
Produktbenamning - Product name
Johanna AP1.2
Radio Access
Dokumentnr - Document nr
1203-5973
Blad - Sheet
9 (15)
Ritningsregler - Drawing rules
AcePlus
LZF 030 102/F R8

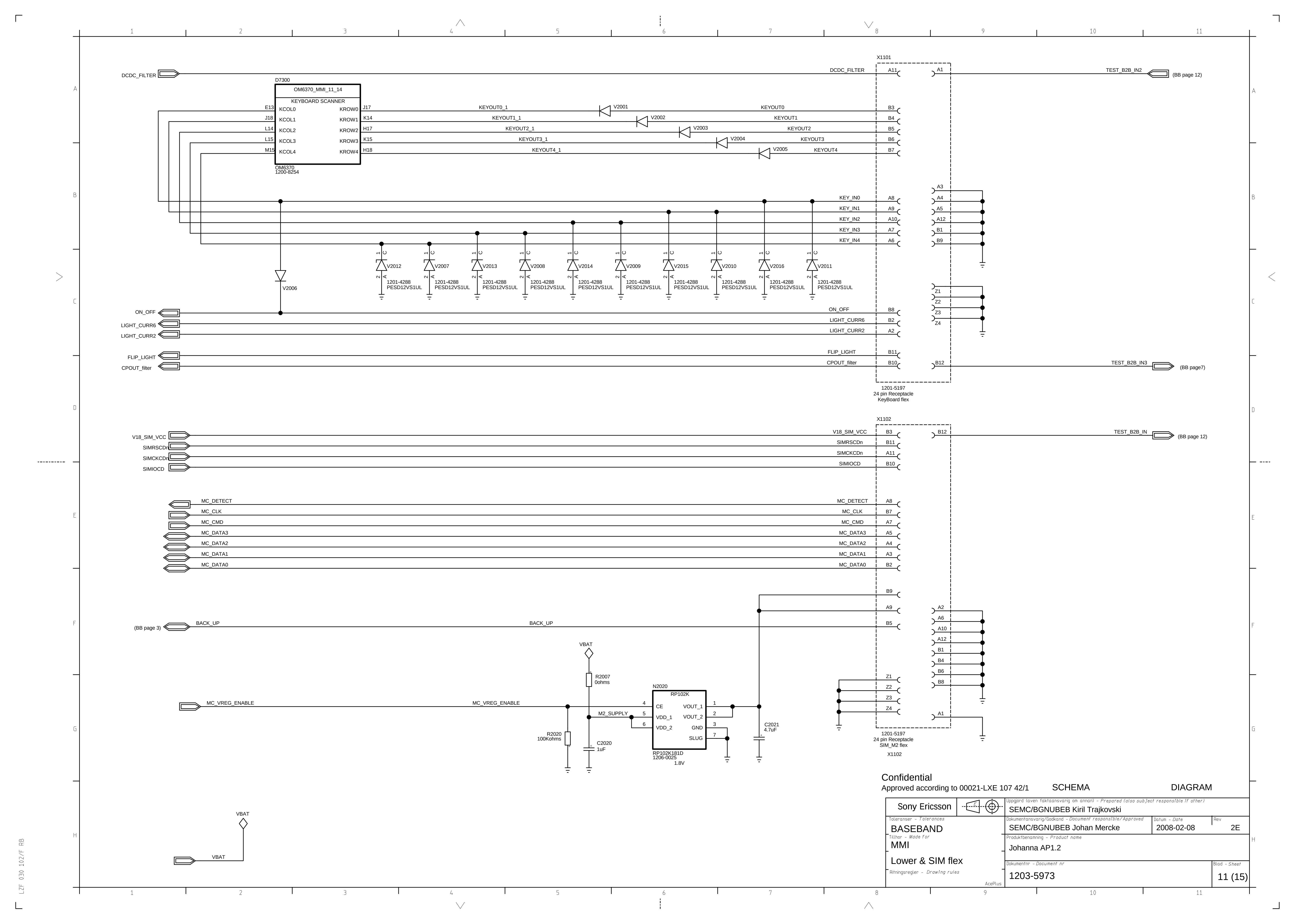


Confidential
Approved according to 00021-LXE 107 42/1 SCHEMA DIAGRAM

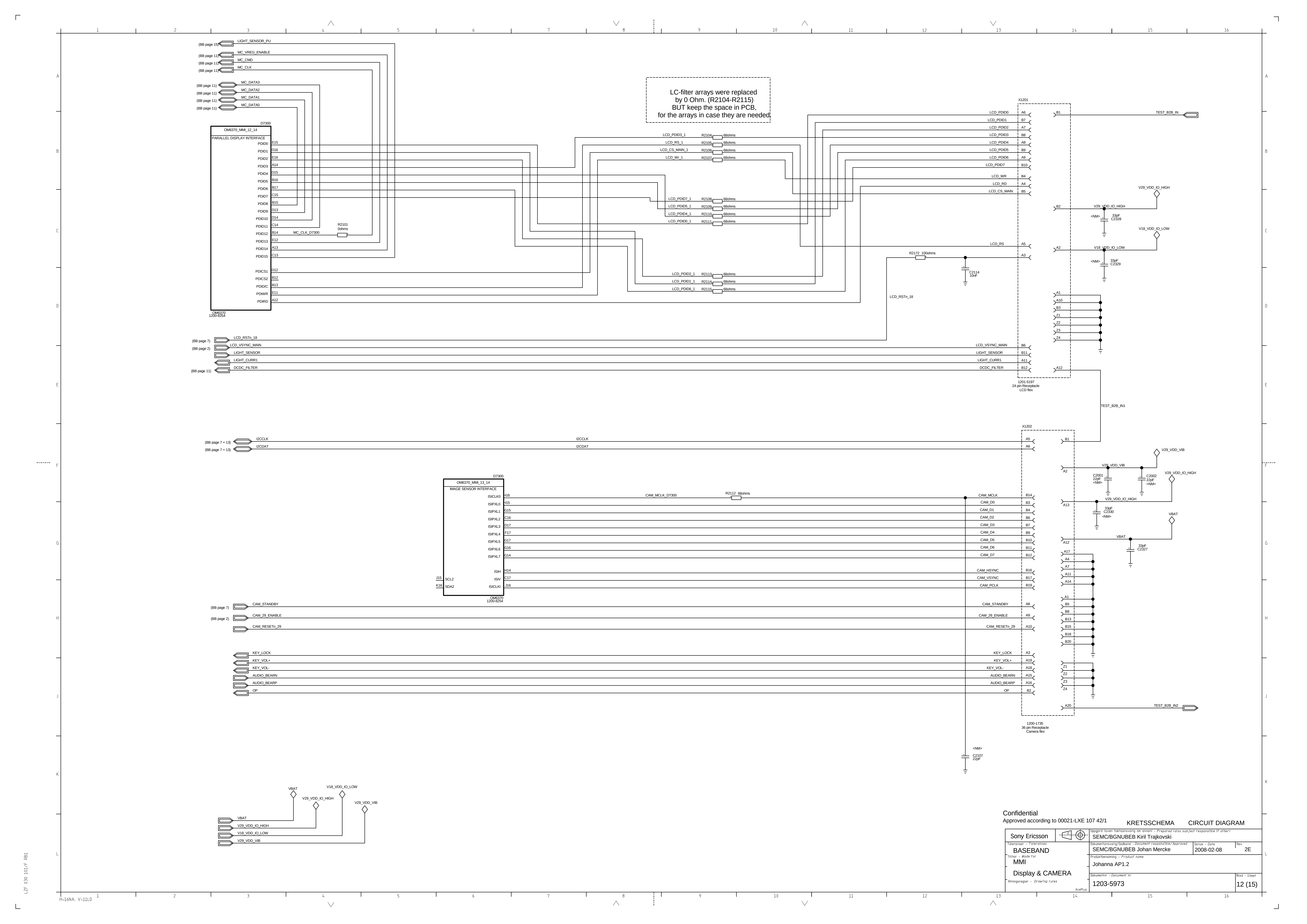
Sony Ericsson	Uppgjord - Prepared: SEMC/BGNUBEB Kiril Trajkovski		
Toleranser - Tolerances: BASEBAND	Dokumentansvarig/Godkänd - Document responsible/Approved: SEMC/BGNUBEB Johan Mercke	Datum - Date: 2008-01-30	Rev: 2E
Tillhör - Made for: MMI Top	Produktbenämning - Product name: Johanna AP1.2		
Ritningsregler - Drawing rules	Dokumentnr - Document nr: 1203-5973		Blad - Sheet: 10 (15)

AcePlus

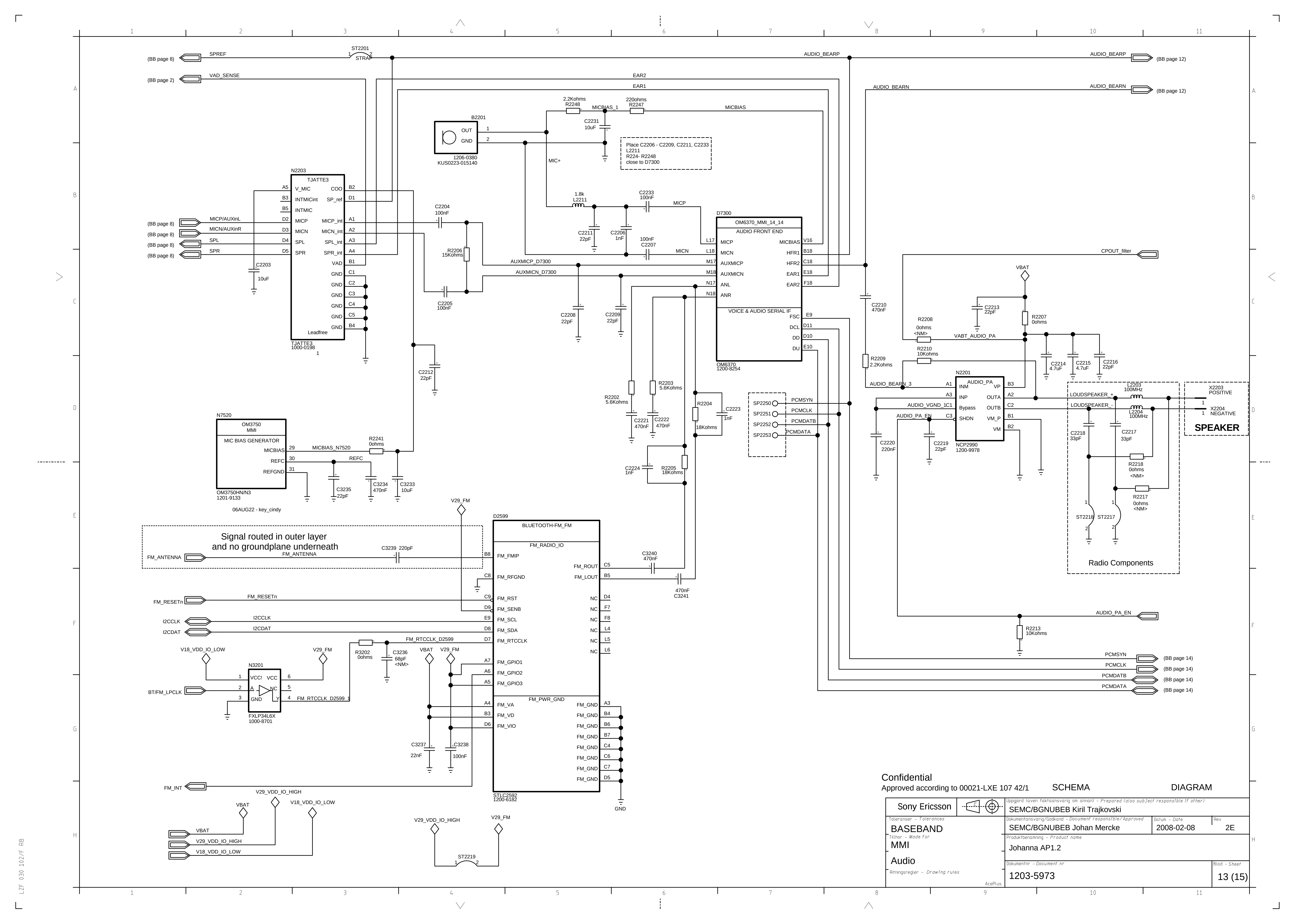
LZF 030 102/F R8



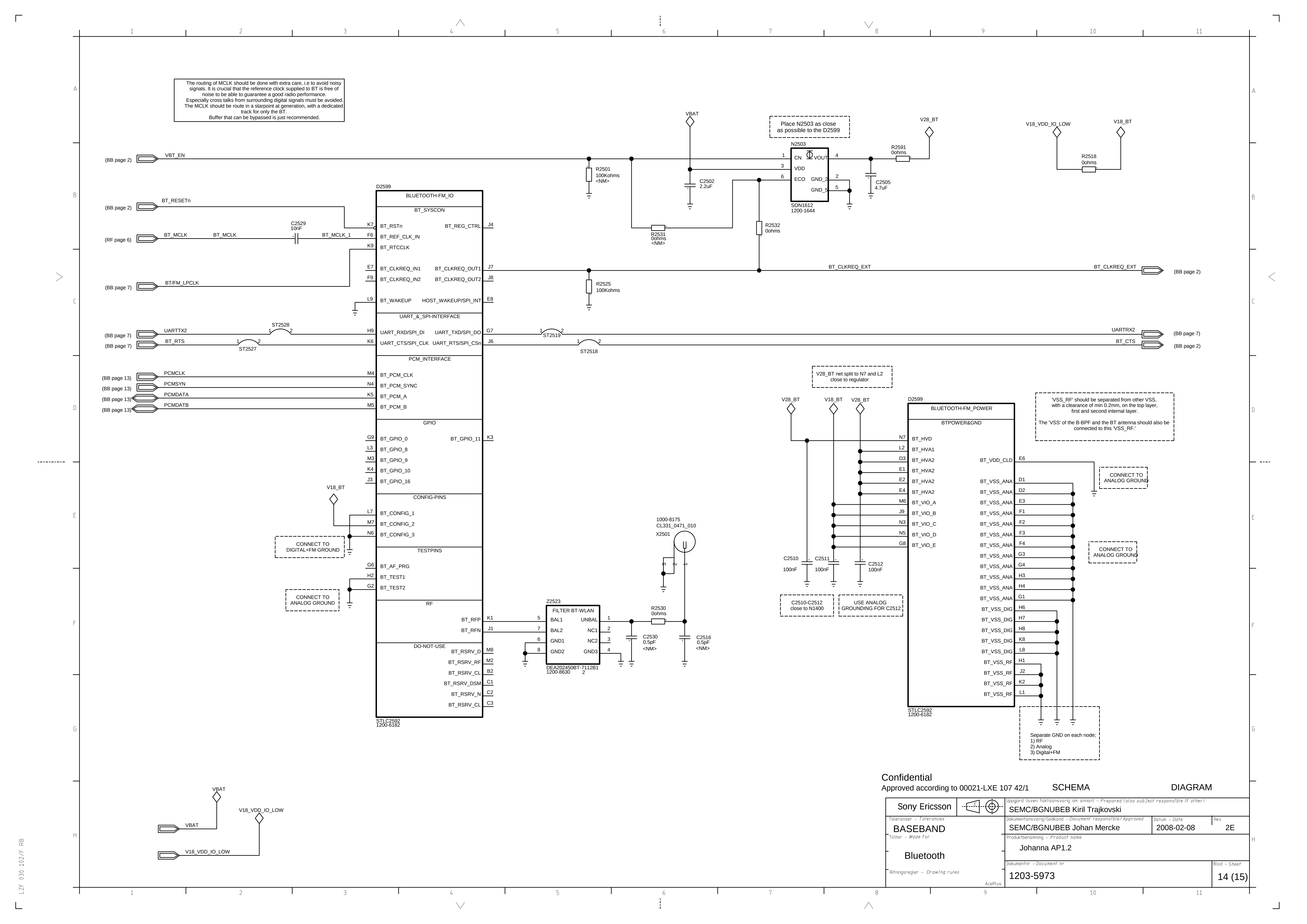
DCDC_FILTER
D7300
OM6370_MMI_11_14
KEYBOARD SCANNER
E13 KCOL0 KROW0 J17
J18 KCOL1 KROW1 K14
L14 KCOL2 KROW2 H17
L15 KCOL3 KROW3 K15
M15 KCOL4 KROW4 H18
OM6370
1200-8254
KEYOUT0_1 KEYOUT1_1 KEYOUT2_1 KEYOUT3_1 KEYOUT4_1
V2001 V2002 V2003 V2004 V2005
KEYOUT0 KEYOUT1 KEYOUT2 KEYOUT3 KEYOUT4
X1101
A11 A1 B3 B4 B5 B6 B7
TEST_B2B_IN2 (BB page 12)
KEY_IN0 KEY_IN1 KEY_IN2 KEY_IN3 KEY_IN4
A8 A9 A10 A7 A6
A3 A4 A5 A12 B1 B9
V2006
V2012 V2007 V2013 V2008 V2014 V2009 V2015 V2010 V2016 V2011
1201-4288
PESD12VS1UL
Z1 Z2 Z3 Z4
ON_OFF B8
LIGHT_CURR6 B2
LIGHT_CURR2 A2
FLIP_LIGHT B11
CPOUT_filter B10 B12
TEST_B2B_IN3 (BB page7)
1201-5197
24 pin Receptacle
KeyBoard flex
X1102
V18_SIM_VCC B3 B12
TEST_B2B_IN (BB page 12)
SIMRSCDn B11
SIMCKCDn A11
SIMIOCD B10
MC_DETECT A8
MC_CLK B7
MC_CMD A7
MC_DATA3 A5
MC_DATA2 A4
MC_DATA1 A3
MC_DATA0 B2
B9 A9
A2 A6 A10 A12 B1 B4 B6 B8
(BB page 3) BACK_UP B5
VBAT
R2007
0ohms
MC_VREG_ENABLE
M2_SUPPLY
N2020
RP102K
4 CE VOUT_1 1
5 VDD_1 VOUT_2 2
6 VDD_2 GND 3
SLUG 7
RP102K181D
1206-0025
1.8V
R2020
100Kohms
C2020
1uF
C2021
4.7uF
Z1 Z2 Z3 Z4 A1
1201-5197
24 pin Receptacle
SIM_M2 flex
X1102
VBAT
VBAT
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA DIAGRAM
Sony Ericsson
SEMC/BGNUBEB Kiril Trajkovski
BASEBAND
SEMC/BGNUBEB Johan Mercke
2008-02-08
2E
MMI
Johanna AP1.2
Lower & SIM flex
1203-5973
11 (15)
LZF 030 102/F R8

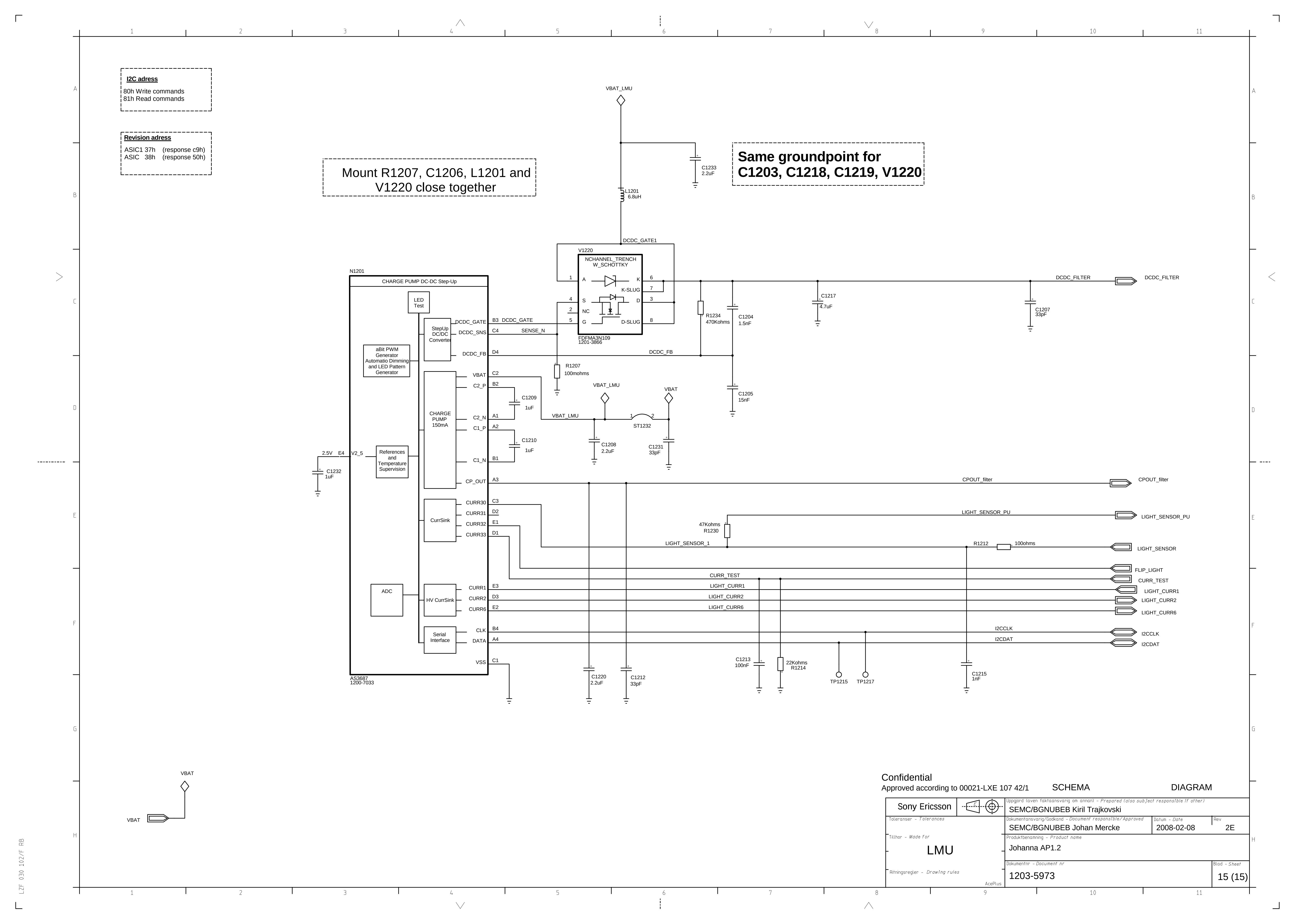


LC-filter arrays were replaced
by 0 Ohm. (R2104-R2115)
BUT keep the space in PCB,
for the arrays in case they are needed.
D7300
OM6370_MMI_12_14
PARALLEL DISPLAY INTERFACE
OM6370
1200-8254
X1201
1201-5197
24 pin Receptacle
LCD flex
TEST_B2B_IN
TEST_B2B_IN1
V29_VDD_IO_HIGH
V18_VDD_IO_LOW
LIGHT_SENSOR_PU
MC_VREG_ENABLE
MC_CMD
MC_CLK
MC_DATA3
MC_DATA2
MC_DATA1
MC_DATA0
MC_CLK_D7300
R2101
0ohms
R2172 100ohms
C2114
10nF
LCD_RSTn_18
LCD_VSYNC_MAIN
LIGHT_SENSOR
LIGHT_CURR1
DCDC_FILTER
D7300
OM6370_MMI_13_14
IMAGE SENSOR INTERFACE
OM6370
1200-8254
X1202
1200-1735
36 pin Receptacle
Camera flex
I2CCLK
I2CDAT
CAM_MCLK_D7300
R2112 68ohms
CAM_MCLK
CAM_HSYNC
CAM_VSYNC
CAM_PCLK
CAM_STANDBY
CAM_29_ENABLE
CAM_RESETn_29
KEY_LOCK
KEY_VOL+
KEY_VOL-
AUDIO_BEARN
AUDIO_BEARP
OP
TEST_B2B_IN2
V29_VDD_VIB
VBAT
C2107
22pF
Confidential
Approved according to 00021-LXE 107 42/1
KRETSSCHEMA CIRCUIT DIAGRAM
Sony Ericsson
SEMC/BGNUBEB Kiril Trajkovski
BASEBAND
SEMC/BGNUBEB Johan Mercke
2008-02-08
2E
MMI
Johanna AP1.2
Display & CAMERA
1203-5973
12 (15)
LZF 030 101/F RB1



SPREF
(BB page 8)
ST2201
STRAP
AUDIO_BEARP
(BB page 12)
VAD_SENSE
(BB page 2)
EAR2
EAR1
AUDIO_BEARN
2.2Kohms
R2248
MICBIAS_1
220ohms
R2247
MICBIAS
B2201
OUT
GND
1206-0380
KUS0223-015140
C2231
10uF
Place C2206 - C2209, C2211, C2233
L2211
R224- R2248
close to D7300
MIC+
N2203
TJATTE3
V_MIC
INTMICint
INTMIC
MICP
MICN
SPL
SPR
COO
SP_ref
MICP_int
MICN_int
SPL_int
SPR_int
VAD
GND
Leadfree
TJATTE3
1000-0198
MICP/AUXinL
MICN/AUXinR
C2203
10uF
C2204
100nF
R2206
15Kohms
C2205
100nF
1.8k
L2211
C2233
100nF
MICP
C2211
22pF
C2206
1nF
100nF
C2207
MICN
AUXMICP_D7300
AUXMICN_D7300
C2208
22pF
C2209
22pF
D7300
OM6370_MM1_14_14
AUDIO FRONT END
MICP
MICN
AUXMICP
AUXMICN
ANL
ANR
MICBIAS
HFR1
HFR2
EAR1
EAR2
VOICE & AUDIO SERIAL IF
FSC
DCL
DD
DU
OM6370
1200-8254
C2212
22pF
R2202
5.6Kohms
R2203
5.6Kohms
C2221
470nF
C2222
470nF
R2204
18Kohms
C2223
1nF
C2224
1nF
R2205
18Kohms
SP2250
SP2251
SP2252
SP2253
PCMSYN
PCMCLK
PCMDATB
PCMDATA
C2210
470nF
R2209
2.2Kohms
AUDIO_BEARN_3
CPOUT_filter
VBAT
C2213
22pF
R2207
0ohms
R2208
0ohms
<NM>
VABT_AUDIO_PA
R2210
10Kohms
C2214
4.7uF
C2215
4.7uF
C2216
22pF
N2201
AUDIO_PA
INM
INP
Bypass
SHDN
VP
OUTA
OUTB
VM_P
VM
NCP2990
1200-9978
AUDIO_VGND_1C1
AUDIO_PA_EN
C2220
220nF
C2219
22pF
L2203
100MHz
LOUDSPEAKER_+
LOUDSPEAKER_-
L2204
100MHz
X2203
POSITIVE
X2204
NEGATIVE
SPEAKER
C2218
33pF
C2217
33pF
R2218
0ohms
<NM>
R2217
0ohms
<NM>
ST2218
ST2217
Radio Components
R2213
10Kohms
(BB page 14)
N7520
OM3750
MMI
MIC BIAS GENERATOR
MICBIAS
REFC
REFGND
OM3750HN/N3
1201-9133
MICBIAS_N7520
R2241
0ohms
REFC
C3235
22pF
C3234
470nF
C3233
10uF
06AUG22 - key_cindy
V29_FM
D2599
BLUETOOTH-FM_FM
FM_RADIO_IO
Signal routed in outer layer
and no groundplane underneath
FM_ANTENNA
C3239
220pF
FM_FMIP
FM_RFGND
FM_RST
FM_SENB
FM_SCL
FM_SDA
FM_RTCCLK
FM_ROUT
FM_LOUT
NC
C3240
470nF
470nF
C3241
FM_RESETn
I2CCLK
I2CDAT
FM_RTCCLK_D2599
V18_VDD_IO_LOW
R3202
0ohms
C3236
68pF
<NM>
N3201
VCC!
VCC
GND
NC
BT/FM_LPCLK
FXLP34L6X
1000-8701
FM_RTCCLK_D2599_1
FM_GPIO1
FM_GPIO2
FM_GPIO3
FM_PWR_GND
FM_VA
FM_VD
FM_VIO
FM_GND
C3237
22nF
C3238
100nF
STLC2592
1200-6182
GND
FM_INT
V29_VDD_IO_HIGH
V18_VDD_IO_LOW
VBAT
ST2219
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA
DIAGRAM
Sony Ericsson
SEMC/BGNUBEB Kiril Trajkovski
BASEBAND
SEMC/BGNUBEB Johan Mercke
2008-02-08
2E
MMI
Audio
Johanna AP1.2
1203-5973
13 (15)
LZF 030 102/F R8


The routing of MCLK should be done with extra care, i.e to avoid noisy signals. It is crucial that the reference clock supplied to BT is free of noise to be able to guarantee a good radio performance. Especially cross talks from surrounding digital signals must be avoided. The MCLK should be route in a starpoint at generation, with a dedicated track for only the BT. Buffer that can be bypassed is just recommended.
Place N2503 as close as possible to the D2599
V28_BT net split to N7 and L2 close to regulator
'VSS_RF' should be separated from other VSS, with a clearance of min 0.2mm, on the top layer, first and second internal layer.
The 'VSS' of the B-BPF and the BT antenna should also be connected to this 'VSS_RF.'
CONNECT TO DIGITAL+FM GROUND
CONNECT TO ANALOG GROUND
C2510-C2512 close to N1400
USE ANALOG GROUNDING FOR C2512
Separate GND on each node; 1) RF 2) Analog 3) Digital+FM
D2599 BLUETOOTH-FM_IO
BT_SYSCON
UART_&_SPI-INTERFACE
PCM_INTERFACE
GPIO
CONFIG-PINS
TESTPINS
RF
DO-NOT-USE
STLC2592 1200-6182
D2599 BLUETOOTH-FM_POWER
BTPOWER&GND
N2503 SON1612 1200-1644
Z2523 FILTER BT-WLAN DEA202450BT-7112B1 1200-8630
X2501 1000-8175 CL331_0471_010
VBAT
V28_BT
V18_BT
V18_VDD_IO_LOW
VBT_EN
BT_RESETn
BT_MCLK
BT/FM_LPCLK
UARTTX2
BT_RTS
PCMCLK
PCMSYN
PCMDATA
PCMDATB
BT_CLKREQ_EXT
UARTRX2
BT_CTS
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA
DIAGRAM
Sony Ericsson
SEMC/BGNUBEB Kiril Trajkovski
BASEBAND
SEMC/BGNUBEB Johan Mercke
2008-02-08
2E
Johanna AP1.2
Bluetooth
1203-5973
14 (15)
LZF 030 102/F RB


I2C adress
80h Write commands
81h Read commands
Revision adress
ASIC1 37h (response c9h)
ASIC 38h (response 50h)
Mount R1207, C1206, L1201 and V1220 close together
Same groundpoint for C1203, C1218, C1219, V1220
VBAT_LMU
C1233 2.2uF
L1201 6.8uH
DCDC_GATE1
V1220
NCHANNEL_TRENCH W_SCHOTTKY
FDFMA3N109 1201-3866
K-SLUG
D-SLUG
DCDC_FILTER
C1217 4.7uF
C1207 33pF
R1234 470Kohms
C1204 1.5nF
N1201
CHARGE PUMP DC-DC Step-Up
LED Test
StepUp DC/DC Converter
aBit PWM Generator Automatic Dimming and LED Pattern Generator
CHARGE PUMP 150mA
References and Temperature Supervision
CurrSink
ADC
HV CurrSink
Serial Interface
AS3687 1200-7033
DCDC_GATE
DCDC_SNS
DCDC_FB
SENSE_N
R1207 100mohms
VBAT
C2_P
C2_N
C1_P
C1_N
CP_OUT
C1209 1uF
C1210 1uF
ST1232
C1208 2.2uF
C1231 33pF
C1205 15nF
2.5V
V2_5
C1232 1uF
CPOUT_filter
CURR30
CURR31
CURR32
CURR33
LIGHT_SENSOR_PU
47Kohms R1230
LIGHT_SENSOR_1
R1212 100ohms
LIGHT_SENSOR
FLIP_LIGHT
CURR_TEST
CURR1
CURR2
CURR6
LIGHT_CURR1
LIGHT_CURR2
LIGHT_CURR6
CLK
DATA
VSS
I2CCLK
I2CDAT
C1220 2.2uF
C1212 33pF
C1213 100nF
22Kohms R1214
TP1215
TP1217
C1215 1nF
Confidential
Approved according to 00021-LXE 107 42/1
SCHEMA
DIAGRAM
Sony Ericsson
SEMC/BGNUBEB Kiril Trajkovski
SEMC/BGNUBEB Johan Mercke
2008-02-08
2E
LMU
Johanna AP1.2
1203-5973
15 (15)
LZF 030 102/F RB